REMARKS

Claims 1-20 are pending in this application. By this Response, claims 1-4 and 12-17 are amended and claims 18-20 are added. Claims 1, 12 and 15 are amended to further exemplify the method being implemented in a data processing system and to recite that the method processes transactions so as to enforce a privacy policy associated with personally identifiable information, as defined by rules of a set of object classes, against one or more active entities represented by another set of object classes. Claims 2-3, 13-14 and 16-17 are amended for clarification purposes only. Support for the amendments to claims 1, 12 and 15 may be found in the present specification at least at page 20, line 17 to page 11, line 21 and Figure 10 with its corresponding description, for example.

Claims 18-20 are added to recite additional features of the present invention. Support for the features recited in claims 18-20 may also be found at the above cited portions of the present specification. No new matter has been added by any of the above amendments or newly added claims. Reconsideration of the claims is respectfully requested in view of the above amendments and the following remarks.

I.   Telephone Interview

Applicants thank Examiner Ho for the courtesies extended to Applicants' representative during the April 20, 2005 telephone interview. During the telephone interview, the above amendments to the claims, the statutory nature of the claimed subject matter, and the distinctions of the claims over the cited art were discussed. Examiner Ho agreed that the rejection of claims 12-17 under 35 U.S.C. 101 has been overcome by the showing of claim 12 being directed to a system and claim 15 being directed to a computer usable medium having computer-executable instructions. Examiner Ho stated that he would review the MPEP regarding the statutory nature of the amended method claims 1-11 and would most likely withdraw the rejection of these claims under 35 U.S.C. 101 based on Applicants' representative's argument and citation of the MPEP. Regarding the rejection of claims 1-20 under 35 U.S.C. 102(b) and 103(a) based on Martin, Applicants' representative argued that while Martin teaches some basic

building blocks of object oriented modeling, Martin does not teach or suggest the specific arrangement of objects, classes, rules, and the like set forth in the present claims. Examiner Ho indicated his agreement with this line of argument. The substance of the telephone interview is summarized in the following remarks.

II.   Rejection of Claims 1-20 under 35 U.S.C. 101

The Office Action rejects claims 1-17 under 35 U.S.C. 101 as being allegedly directed to non-statutory subject matter. The Office Action alleges that invention recited in claims 1-17 does not produce any tangible result and is only directed to the manipulation of abstract ideas. Applicants respectfully disagree.

As stated in the MPEP at section 2106(IV)(B)(2)(b):

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. *Schrader*, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), or (B) be limited to a practical application within the technological arts.

...A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See *AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1452.

Examples provided in the MPEP for statutory process claims that are limited to a practical application include:

- A computerized method of optimally controlling transfer, storage and retrieval of data between cache and hard disk storage devices such that the most frequently used data is readily available.

- A method of controlling parallel processors to accomplish multi-tasking of several computing tasks to maximize computing efficiency. See, e.g., *In re Bernhart*, 417 F.2d 1395, 1400, 163 USPQ 611,616 (CCPA 1969).

- A method of making a word processor by storing an executable word processing application program in a general purpose digital computer's

Page 9 of 17
Adler et al. – 09/884,311

memory, and executing the stored program to impart word processing functionality to the general purpose digital computer by changing the state of the computer's arithmetic logic unit when program instructions of the word processing program are executed.

- A digital filtering process for removing noise from a digital signal comprising the steps of calculating a mathematical algorithm to produce a correction signal and subtracting the correction signal from the digital signal to remove the noise.

In a similar manner, the present invention, as recited in amended claim 1 is directed to a method for handling personally identifiable information comprising steps of providing various object classes in a computer and using these object classes to process transactions within a data processing system so as to enforce a privacy policy against one or more active entities represented by a first set of these object classes. Thus, the invention as recited in claim 1 is limited to the practical application of enforcing a privacy policy associated with personally identifiable information against one or more active entities. As a result, the present invention as recited in claim 1, is directed to a computer related process that is limited to a practical application within the technological arts. Thus, the invention as recited in claim 1 is statutory as stated in MPEP 2106(IV)(B)(2)(b), which has been reproduced in pertinent part above.

Moreover, it should be appreciated that claim 1 is directed to a method "in a data processing system" in which objects are provided "in a computer" and transactions are processed "in the data processing system." As stated in the MPEP 2106(IV)(B)(1)(a):

> Office personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence nonstatutory.

In the present case, the invention as recited in claim 1 is clearly directed to a method that is implemented "in a data processing system" on a computer. Thus, the

method is invention as recited in claim 1 falls into the category of a computer program that is used in a computerized process where the computer executes the instructions set forth in the computer program. Thus, under the reasoning set forth in MPEP 2106(IV)(B)(1)(a), the invention as recited in claim 1 is statutory. Claim 1 is not merely a program listing.

Similarly, amended claim 4 recites a method implemented in a data processing system for improving the handling of personally identifiable information in which an initial assessment of an information handling process is performed in the data processing system, a model of the information handling process is constructed in the data processing system, and an output that identifies at least one way of improving the handling of the personally identifiable information is provided. Thus, again, the invention recited in claim 1 is limited to a practical application in the technological arts, i.e. the analysis and modeling of an information handling process so as to determine at least one improvement to handling personally identifiable information. Moreover, the claim is clearly directed to a method implemented in a data processing system and thus, is akin to the computer program used in a computerized process where the computer executes the instructions set forth in the computer program. Thus, under similar analysis set forth above with regard to claim 1, claim 4 is also statutory based on the guidelines provided in MPEP section 2106.

With regard to claim 12, this claim is directed to a system for handling personally identifiable information having various means set forth in claim 12. As stated in MPEP 2106(IV)(B)(2)(a):

> A claim limited to a machine or manufacture, which has a practical application in the technological arts, is statutory.

With claim 12, the system has a practical application in the technological arts, i.e. enforcing a privacy policy against one or more active entities based on provided object classes. Thus, claim 12 is directed to a statutory system under MPEP 2106(IV)(B)(2)(a). Moreover, Examiner Ho agreed, during the telephone interview, that claim 12 is directed to statutory subject matter and that the rejection of claims 12-14 under 35 U.S.C. 101 would be withdrawn.

Page 11 of 17
Adler et al. – 09/884,311

Regarding claim 15, this claim is directed to a computer-usable medium having computer-executable instructions for handling personally identifiable information. As stated in MPEP 2106 (IV)(B)(1):

> In this context, "functional descriptive material" consists of <u>data structures</u> and computer programs <u>which impart functionality when employed as a computer component</u>. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

> <u>When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized</u>. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).
> (emphasis added)

Thus, the computer usable medium recited in claim 15 is statutory subject matter under MPEP 2106(IV)(B)(1). Moreover, Examiner Ho agreed, during the telephone interview, that claims 15-17 are directed to statutory subject matter and that the rejection of claims 15-17 under 35 U.S.C. 101 would be withdrawn.

In view of the above, Applicants respectfully submit that all of claims 1-17 are directed to statutory subject matter. Accordingly, Applicants respectfully requests withdrawal of the rejection of claims 1-17 under 35 U.S.C. 101.

III.   Rejection of Claims 1-2, 4-10, 12-13 and 15-16 under 35 U.S.C. 102(b)

The Office Action rejects claims 1-2, 4-10, 12-13 and 15-16 under 35 U.S.C. 102(b) as being allegedly anticipated by Martin, "Principles of Object Oriented Analysis and Design." This rejection is respectfully traversed.

Amended claim 1 reads as follows:

1.   A method, in a data processing system, for handling personally identifiable information, said method comprising:

providing, in a computer, a first set of object classes representing active entities in an information-handling process, wherein a limited number of privacy-related actions represent operations performed on data;

providing, in said computer, a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information; and

processing transactions, in the data processing system, involving said personally identifiable information, using said computer and said first and second set of object classes, so as to enforce a privacy policy, associated with the personally identifiable information and defined by said rules, against one or more active entities represented by said first set of object classes.

(emphasis added)

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). Martin does not identically show every element of the claimed invention arranged as they are in the claims. Specifically, Martin does not teach a first set of object classes representing active entities in an information handling process, a second set of object classes representing data and rules in an information handling process, or processing transactions involving personally

identifiable information so as to enforce a privacy policy associated with the personally
identifiable information and defined by rules of the second set of object classes, against
one or more active entities represented by the first set of object classes.

Martin is a textbook that is concerned with describing the basic building blocks of
object-oriented modeling. As such, Martin generally teaches objects, classes, rules, and
the like. However, Martin does not provide any teaching or suggestion regarding the
specific arrangement of objects, classes and rules, or the processing of transactions using
such arrangement of objects, classes and rules so as to enforce a privacy policy,
associated with personally identifiable information and defined by rules in a set of object
classes, against one or more active entities represented by a first set of object classes. As
discussed with Examiner Ho during the telephone interview, while Martin may teach
some basic building blocks, Martin does not provide any teaching or suggest to arrange
the building blocks in the specific manner recited in claim 1 so as to process transactions
in the manner specifically recited in claim 1. Examiner Ho indicated his agreement with
this argument during the telephone interview and thus, it is Applicants' understanding
that Examiner Ho agrees that Martin does not teach the specific features recited in claim
1 arranged as they are in claim 1 and that the rejection with regard to claim 1 and its
dependent claims based on Martin should be withdrawn.

Similarly, independent claim 4, recites a particular method in which an initial
assessment of an information-handling process is performed, a model of the information-
handling process is constructed based on the initial assessment, and output is provided
based on the initial assessment and constructing, that identifies at least one way in which
personally identifiable information could be better handled. While Martin mentions the
use of CRC cards, which are physical index cards used by programmers to represent
classes in an object oriented model, and the desire of programmers to "think like an
object," nowhere in Martin is there any teaching or suggestion of a methodology in a data
processing system for analyzing an information handling process, constructing a model of
the information handling process, or generating an output that identifies at least one way
in which personally identifiable information can be better handled by the information
handling process, as recited in claim 4. To the contrary, Martin is merely describing, in
general, a manual, index card based, technique by which programmers may try to gain

some insight into how the classes and objects of an object oriented model may operate. Martin does not teach anything regarding personally identifiable information, handling personally identifiable information, or performing an assessment, constructing a model, or determining an improvement to a personally identifiable information handling process.

Independent claims 12 and 15 provide system and computer-usable medium claims having features that are similar to those discussed above with regard to claim 1. Therefore, these claims are distinguished over Martin for similar reasons as set forth above with regard to claim 1.

In view of the above, Applicants respectfully submit that Martin does not teach each and every feature of independent claims 1, 4, 12 and 15 as is required under 35 U.S.C. 102(b). At least by virtue of their dependency on claims 1, 4, 12 and 15, respectively, Martin does not teach each and every feature recited in dependent claims 2, 5-10, 13 and 16. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-2, 4-10, 12-13 and 15-16 under 35 U.S.C. 102(b).

IV.   Rejection of Claims 3, 11, 14 and 17 under 35 U.S.C. 103(a)

The Office Action rejects claims 3, 11, 14 and 17 under 35 U.S.C. 103(a) as being allegedly unpatentable in view of Martin. This rejection is respectfully traversed for at least the reasons set forth above with regard to claims 1, 4, 12 and 15, from which claims 3, 11, 14 and 17 depend, respectively. In addition, Applicants respectfully traverse the Examiner's taking of Official Notice that representing rules as a filled paper form, including both collected data and rules regarding said collected data, was well known in the art at the time of the invention. While electronic forms may have been generally known, associating rules with data collected by such electronic forms in said electronic forms was not know prior to Applicants' claimed invention. Accordingly, Applicants respectfully request that the Examiner cite a reference in support of the Official Notice or otherwise, withdraw the Official Notice.

Moreover, even if electronic forms having collected data and associated rules were known prior to Applicants' invention, there is no teaching or suggestion to include such a feature in the mechanisms of Martin. As discussed previously, Martin is merely a

general textbook describing the basic building blocks of object-oriented models. Martin does not provide any teaching or suggestion of any problem for which electronic forms having collected data and associated rules would be a solution. The only basis for asserting such a combination is a hindsight reconstruction of Applicants' claimed invention using Applicants' own disclosure to provide the suggestion for making the combination. Such a combination, predicated on knowledge of Applicants' claimed invention, is impermissible as a basis for establishing a prima facie case of obviousness.

Furthermore, even if such a combination were possible and there were a suggestion in Martin to include such electronic forms with collected data and associated rules, the result still would not be the invention as recited in claims 3, 11, 14 and 17. As discussed above, Martin does not provide any teachings or suggestions regarding the features of independent claims 1, 4, 12 and 15. The inclusion of an electronic form with collected data and associated rules would not provide for this deficiency in Martin. Thus, the combination still would not result in the invention as recited in claims 3, 11, 14 and 17.

In view of the above, Applicants respectfully submit that Martin does not teach or suggest the features recited in dependent claims 3, 11, 14 and 17. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 3, 11, 14 and 17 under 35 U.S.C. 103(a).
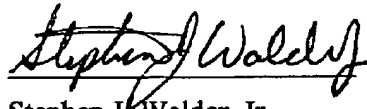
V.   Newly Added Claims 18-20

Claims 18-20 are added to recite additional features of the present invention. Claims 18-20 are dependent claims from independent claims 1 and 12, respectively, and thus are allowable over the Martin reference at least by virtue of their dependency. In addition, these claims recite other features not taught or suggested by the Martin reference. Prompt and favorable consideration of claims 18-20 is respectfully requested.

VI.   Conclusion

It is respectfully urged that the subject application is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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